

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

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Listing of Claims:

Claim 1. (Currently amended) A fusible print medium, comprising:
a photobase layer;
10 a vehicle sink layer; and
a colorant-receiving layer comprising core-shell polymer particles having a hydrophilic shell and a fusible hydrophobic core, wherein the colorant-receiving layer is configured to have a phase inversion that encapsulates a colorant in the colorant-receiving layer, and wherein the hydrophilic shell
15 comprises a latex vinyl polymer, and wherein cationic mordant is fused or grafted to a surface of the hydrophilic shell to provide mordant properties to the colorant-receiving layer, the cationic mordant being selected from the group consisting of a polyamine, a polyethyleneimine, a polyamidoamine, a quaternary amine polymer and derivatives thereof.

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Claim 2. (Original) The fusible print medium of claim 1, wherein the colorant-receiving layer is configured to invert from a porous, hydrophilic surface to a continuous layer having a hydrophobic surface.

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Claim 3. (Original) The fusible print medium of claim 2, wherein the colorant-receiving layer is configured to invert from a porous, hydrophilic surface to a continuous layer having a hydrophobic surface upon exposure to heat, pressure, or combinations thereof.

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Claim 4. (Original) The fusible print medium of claim 2, wherein the colorant-receiving layer is configured to invert from a porous, hydrophilic surface to a continuous layer having a hydrophobic surface upon exposure to a temperature greater than a glass transition temperature of the fusible hydrophobic

core.

Claim 5. (Original) The fusible print medium of claim 1, wherein the colorant is encapsulated in hydrophilic domains in the colorant-receiving layer by the phase inversion.

Claim 6. (Previously presented) The fusible print medium of claim 1, wherein the fusible hydrophobic core is selected from the group consisting of a copolymer of acrylate and methacrylate, a styrene-acrylic polymer, a vinyl acetate-acrylic, a vinyl acetate-ethylene, and a copolymer of acrylonitrile.

Claim 7. (Canceled)

Claim 8. (Original) The fusible print medium of claim 1, further comprising a topcoat layer.

Claim 9. (Currently amended) A method of printing a photographic quality image, comprising:

providing a fusible print medium comprising a photobase layer, a vehicle sink layer, and a colorant-receiving layer, the colorant-receiving layer having a porous, hydrophilic surface and comprising core-shell polymer particles having a hydrophilic shell and a fusible hydrophobic core, wherein the hydrophilic shell comprises a latex vinyl polymer, and wherein cationic mordant is fused or grafted to a surface of the hydrophilic shell to provide mordant properties to the colorant-receiving layer, the cationic mordant being selected from the group consisting of a polyamine, a polyethyleneimine, a polyamidoamine, a quaternary amine polymer and derivatives thereof;

depositing inkjet ink onto the fusible print medium to print a desired image; and

fusing the colorant-receiving layer into a continuous, hydrophobic film.

Claim 10. (Original) The method of claim 9, wherein fusing the colorant-receiving layer into a continuous, hydrophobic film comprises exposing the

fusible print medium to heat, pressure, or combinations thereof.

Claim 11. (Original) The method of claim 10, wherein exposing the fusible
print medium to heat, pressure, or combinations thereof comprises exposing
5 the fusible print medium to a temperature greater than a glass transition tem-
perature of the fusible hydrophobic core.

Claim 12. (Original) The method of claim 9, wherein exposing the fusible
print medium to heat, pressure, or combinations thereof comprises exposing
10 the fusible print medium to a heat source selected from the group consisting
of a drying oven, an infrared oven, a heat lamp, an infrared lamp, a hot press,
a laminator, and an iron.

Claim 13. (Original) The method of claim 9, wherein fusing the colorant-
15 receiving layer into a continuous, hydrophobic film comprises encapsulating a
colorant from the inkjet ink in hydrophilic domains in the colorant-receiving
layer.

Claim 14. (Original) The method of claim 9, wherein fusing the colorant-
20 receiving layer into a continuous, hydrophobic film comprises contacting the
fusible hydrophobic core with a coalescing agent.

Claim 15. (Original) The method of claim 14, wherein contacting the fusible
hydrophobic core with a coalescing agent comprises incorporating the coa-
25 lescing agent into the inkjet ink.

Claim 16. (Original) The method of claim 14, wherein contacting the fusi-
ble hydrophobic core with a coalescing agent comprises contacting the fusible
hydrophobic core with a coalescing agent selected from the group consisting
30 of 2,2,4-trimethyl-1,3-pentanediol monoisobutyrate, ethylene glycol monobutyl
ether, diethylene glycol monobutyl ether, diethylene glycol monomethyl ether,
propylene glycol monomethyl ether, and dipropylene glycol monomethyl ether.

Claim 17. (Previously presented) A method of producing a fusible print medium, comprising:

forming a vehicle sink layer on a photobase layer; and

forming a colorant-receiving layer on the vehicle sink layer, the color-

5 ant-receiving layer comprising core-shell polymer particles having a hydrophilic shell and a fusible hydrophobic core, wherein the colorant-receiving layer is configured to invert from a porous, hydrophilic surface to a continuous layer having a hydrophobic surface, and wherein the hydrophilic shell comprises a latex vinyl polymer, and wherein cationic mordant is fused or grafted
10 to a surface of the hydrophilic shell to provide mordant properties to the colorant-receiving layer, the cationic mordant being selected from the group consisting of a polyamine, a polyethyleneimine, a polyamidoamine, a quaternary amine polymer and derivatives thereof.

15 Claim 18. (Previously presented) The method of claim 17, wherein forming a colorant-receiving layer comprising core-shell polymer particles comprises forming the colorant-receiving layer from the latex vinyl polymer and a fusible hydrophobic core that is selected from the group consisting of a copolymer of acrylate and methacrylate, a styrene-acrylic polymer, a vinyl acetate-acrylic, a vinyl acetate-ethylene, and a copolymer of acrylonitrile.
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Claim 19. (Original) The method of claim 17, further comprising forming a topcoat layer on the colorant-receiving layer.

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